

APPROVED O.G. FIG.
BY CLASS SUBCLASS

Appin No.: 09/886,400

Applicant(s): Murphy, et al.
ALPHA GALACTOSIDASES AND METHODS FOR MAKING
AND USING THEM (AMENDED)

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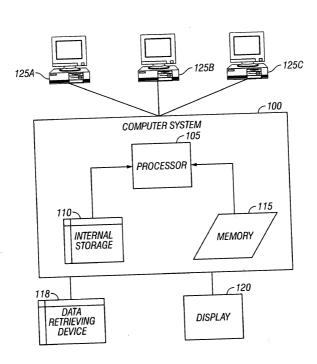
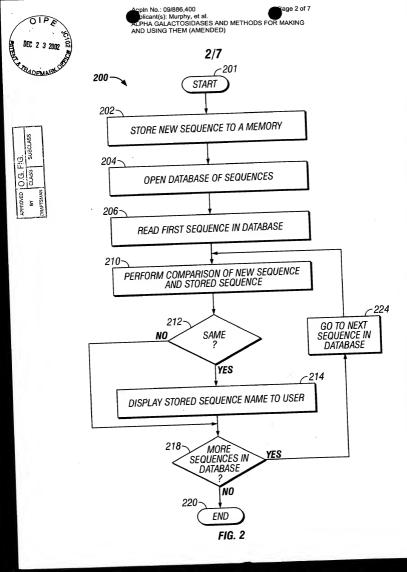
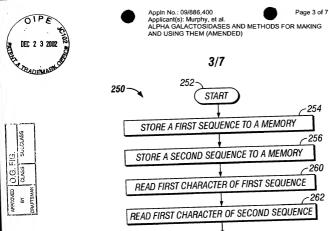


FIG. 1





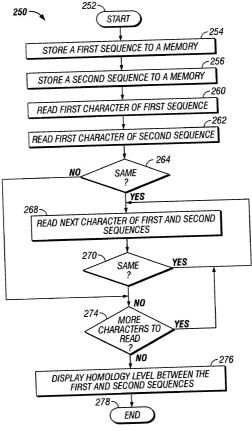
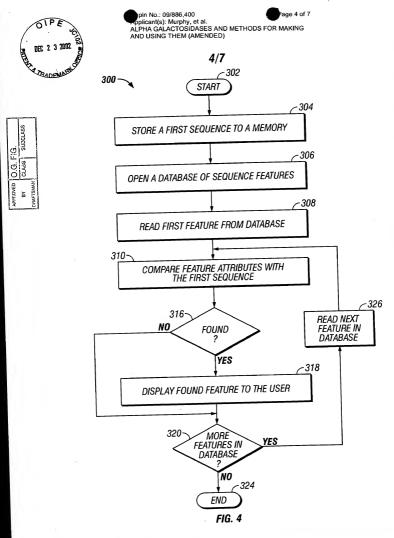


FIG. 3



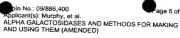




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48	96	144	192	240	288	336	384
CCA Pro	ATC Ile		666 61y	CAC His		66A 613	A CTG
ATC 11e 15	GTC Val	ACG Thr	AAA Lys	ACG Thr	GTT Val 95		ATA Ile
GAA Glu	CCA Pro-	ATA Ile	GTT Val	TAC Tyr	CAA G1n	CCA Pro	GCC Ala
GCC G	ATC (Ile F	AAC / Asn 45	CTC	AGC Ser	GCA Ala	TCT Ser	CCT Pro 125
[AT	TAC Tyr	CTC	GAC Asp	ACG Thr	GAA Glu	GTT Val	ATC Ile
CAG 1		666 61y	ATA I 1e			GAG G1u	
25 ale	AAG Lys	TTT	ATT I le		AGA Arg		CCG Pro
AAC (Asn 1	GAG / Glu	CCT Pro	GAT Asp	ATA Ile	AGC Ser	CTC	GAC Asp
gac Gly	ATA I 1e		AAG Lys	GAG G1u	CTT	GAG G1u	TAT Tyr 120
CAC (His (GTC , Val		CCG		CCG Pro		GCC Ala
TTT	AAG Lys	GAA G1u	CTC Leu	CTG Leu	CTG Leu	AAG Lys	CTC Leu
GTC 7	CCA /	AAA	TTC	GAC Asp	CTC	GTT Val	GAG G1u
CTC	ATC 11e	ATT 11e	AAG Lys	AGT Ser	CCC Pro	GAA Glu	CCA Pro
GCG (Ala L	_		en Ta	GCG Ala	CTC	AGG Arg	CTG Leu 115
AGA G Arg A	AGC G Ser G			ATC (GAT Asp	766 Trp
TTG AV	AAG A Lys S	GAG A			GCA /		



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432	480	528	9/9	624	672	720	892
GAC AAC GGT TAT GAG TAT CTA TTC GCC GAC GGG GAG GCG ATG CTT Asp Asn Gly Tyr Glu Tyr Leu Phe Ala Asp Gly Glu Ala Met Leu	TCG GCG ATA AAG CCA ATT AAA CCG CTC TAT Ser Ala Ile Lys Pro Ile Lys Pro Leu Tyr 160	CAC CTT ATA AAG GCC CAA AGG GAA AAG CGC TTT AGG TAC ATC AGC His Leu Ile Lys Ala Gln Arg Glu Lys Arg Phe Arg Tyr Ile Ser His Leu Ile Lys Ala Gln Arg Glu Lys Arg Phe Arg Tyr Ile Ser	CTC CTT GGT CTC AGG GAG CTT AGG AAG GCG ATA AAG CTC GTT TTT LEU LEU GIJY LEU ARG GTU LEU ARG LYS ATA ITE LYS LEU VAI Phe	180 GGT AAG GTA ACG CTA AAG GCA GTC AAA GAC ATC GAA GCC GTA CCC GTy Lys Val Thr Leu Lys Ala Val Lys Asp ITe Glu Ala Val Pro	195 TGG GTG GCC GTG AAC ACG GCT GTA ATG CTC GGC ATC GGA AGG CTT Trp Val Ala Val Asn Thr Ala Val Met Leu Gly Ile Gly Arg Leu	210 CTT ATG AAT CCT AAG AAA GTG GCG AGC TGG ATA GAG GAC AAG GAC Leu Met Asn Pro Lys Lys Val Ala Ser Irp Ile Glu Asp Lys Asp	230 230 230 235 CTT CTA TAC GGC ACC GAT ATA GAG TTC ATT GGC TAT AGG GAC Leu Leu Tyr Gly Thr Asp Ile Glu Phe Ile Gly Tyr Arg Asp 255





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816	864	912	096	1008	1056	1095
GAC Asp	66A G1y		700 320 320			
ATA I 1e	AGT Ser	AGC Ser	CTG Leu	GAT Asp	CGG Arg	
GTT Val 270			ATG Met			
GAG G1u	AAG Lys 285	GAT Asp	AAT Asn	AAC Asn	GCC Ala	TAG END 365
			CTT			CCT Pro
TTA Leu	GAG Glu	GCA Ala	AGA Arg 315	GCC Ala	CTG Leu	GAA G1u
			GCA Ala			666 61y
GAG G1u 265	CCC Pro	AGT Ser	AAC Asn	TTT Phe	AGG Arg	AAT Asn
GTT Val	CH Security	TCG	666 61y	GCC Ala	GAG G1u	GAA G1u 360
AGT Ser	TGC Cys	ACT Thr 295	GAA Glu	CTC	CCT Pro	66T 61y
ATG Met	CTG Leu	CGG Arg	GAC Asp	GAA G1u	CTC	AGG Arg
AGA Arg	GAA Glu	TTA Leu	GAG G1u	66C 61y	SCC CCC Pro	766 Trp
TAC 750	TCG	TAC	AGA Arg	AGG Arg	GAG	S40 GAT Asp
66C 61y	AAC Asn 275	CTC	766 Trp	ATG Met	766 Trp	AAC Asn 355
			ATA ATA Ile			
			AGG Arg			